Ordering number:ENN6475

N-Channel Silicon MOSFET

2SK2464

Ultrahigh-Speed Switching Applications

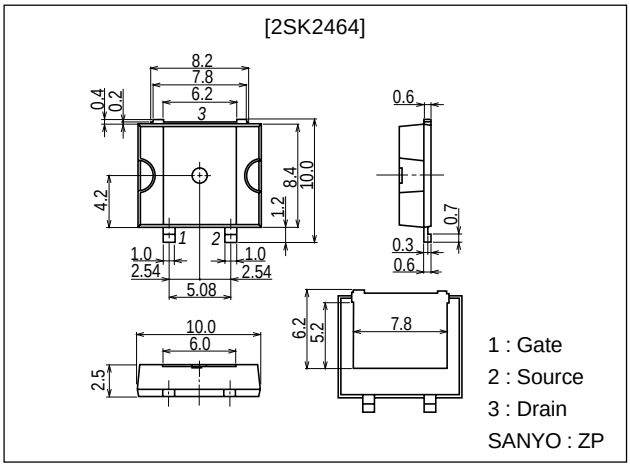
Features

- Low ON resistance.
- Ultrahigh-speed switching.
- Enables simplified fabrication, high-density mounding, and miniaturization in end products due to the surface mountable package.

Package Dimensions

unit:mm

2128



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		30	V
Gate-to-Source Voltage	V_{GSS}		±20	V
Drain Current (DC)	I_D		45	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	180	A
Allowable Power Dissipation	P_D	Tc=25˚C	50	W
Channel Temperature	Tch		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0	30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V, V_{GS}=0			100	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±20V, V_{DS}=0			±100	nA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1mA	2		4	V
Forward Transfer Admittance	| yfs |	V_{DS}=10V, I_D=22A	20	30		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	I_D=22A, V_{GS}=10V		8.5	12	mΩ
Input Capacitance	Ciss1	V_{DS}=0V, f=1MHz		3750	4300	pF
	Ciss2	V_{DS}=10V, f=1MHz		2700		pF
Output Capacitance	Coss	V_{DS}=10V, f=1MHz		2300		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, f=1MHz		450		pF

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		45		ns
Rise Time	t_r	See specified Test Circuit		350		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		100		ns
Fall Time	t_f	See specified Test Circuit		100		ns
Diode Forward Voltage	V_{SD}	I_S=45A, V_{GS}=0		1.0	1.5	V

Switching Time Test Circuit